Semantic Representation and Provenance of Cultural Heritage Information: the National Gallery Collection in London.

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**Abstract** (192/250 words): This paper describes a working example of mapping cultural heritage information and data from the National Gallery collection in London. The paper discusses the process of semantically representing and enriching the available cultural heritage data, and reveals the challenges of semantically expressing interrelations and groupings among the physical items, the venue and the available digital resources. The paper also highlights the challenges in the creation of the conceptual model of the National Gallery as a Venue, which aims to i) describe and understand the correlation between the parts of a building and the whole; ii) to record and express the semantic relationships among the building components with the building as a whole; and iii) to be able to record the accurate location of objects within space and capture their provenance in terms of changes of location. The outcome of this investigation is the proposed fully CIDOC-CRM compliant structure, that has been developed during the CrossCult project, the CrossCult Venue Ontology, which attempts to model the spatial arrangements of the different venues that participate as demonstrators in the project: an indoor gallery, a small museum, four open air archaeological sites and two cities.

**Keywords:** Ontology-based representation, CIDOC-CRM, Cultural Heritage Venues, Spatial arrangements